

REMARKS

Claims 1, 2, 4-9, 11 -14 are pending.

I. 35 U.S.C. §103(a) Rejection of Claims 1, 2, 4-9 and 11-14

Claims 1, 2, 4-9, and 11-14 stand rejected under 35 USC §103(a) as allegedly being unpatentable over CA 910844. This rejection is respectfully traversed.

The Office Action admits CA '844 does not specifically disclose the angle of the V-groove. However, the Office Action states "one having ordinary skill in the art would have the ability to perform routine experimentation in order to optimize this plane of weakness" and "figure no. 3 of the CA patent shows the v-groove used in the bottom of the plate and it appears to be in the range as set forth in applicant's instant claims."

It is respectfully submitted the Office Action is incorrect on both counts.

A. Fig. 3 shows a groove of approximately 50 degrees

Firstly, referring to Fig. 3 of CA '844 it can be seen that the groove is approximately 50 degrees. A marked up copy of Fig. 3 of CA '844 indicating this is attached (ATTACHMENT D). This is clearly well below the range of the present application. The lower limit of the present application requires a V-groove of around 75 degrees. The 50 degrees shown in Fig. 3 is nowhere near this the claimed lower limit.

B. The present invention was not achieved with routine experimentation

Further, as discussed in the present application it is by no means routine experimentation which has resulted in the presently claimed invention. There have been significant problems in the prior art of the deposited metal not cleanly and clearly separating from the cathode plate. The present specification itself, and experience in the art, shows the system disclosed in the cited prior art does not satisfy current production requirements and speeds. In addition, arriving at the present invention is not simply a matter of experimentation. Rather it is a matter of determining the cause of this problem and determining a solution for stripping of the deposited copper by various techniques and at various speeds.

A careful analysis of the problem and providing a solution for that problem is the subject of the present application. At first instance, for example, the problem of unequal separation could have been caused by excessive deposition of material inside the V-groove.

Accordingly, the solution may have been to prevent any deposition of copper in the V-groove. This is in fact similar to conventional systems which have a deposition barrier, e.g., wax, formed along the bottom edge of the cathode plate.

The present Applicants, however, found this was not in fact the case. The Applicants surprisingly found that, if anything, the V-groove needed to be expanded over the prior art to allow deposition of copper inside the V-groove. This is contrary to conventional thinking since additional deposition of copper would, it may have been thought, cause additional strength and thereby additional problems with separating the two sides of the deposited material.

Unexpectedly, this was not in fact the case. The "opening up" of the V-groove to 75-105 degrees allowed deposition of copper into the V-groove which, when subjected to the stripping process, allowed the deposited copper on either side to be separated into substantially equivalent sheets.

The whole thrust of CA '844 is not to provide two substantially equivalent sheets, but rather to prevent damage to the cathode mother plate. CA '844, page 8, line 10 describes the use of a parting medium in which to strip the copper, i.e., "In the case of copper and stainless steel blanks, it is advantageous to coat them with a parting medium to reduce adherence of the deposited copper".

On the same page, CA '844 states "copper can be stripped or peeled away from the blanks in two pieces without damaging the blanks." Further, page 8, lines 26-27, states "the plane of weakness in the bottom edge deposit eliminates any serious interference with a stripping operation." Claim 9 of CA '844 further reinforces this where, after all the conditions are recited, it states "... while permitting the copper to be stripped after deposition is completed without damaging the cathode blank."

In other words, the thrust of CA '844 is to simply allow stripping of the deposited material without damaging the cathode blank. There is no discussion or suggestion of "two substantially equivalent sheets" and there is certainly no mention of a V-groove with an angle of 75-105 degrees.

Applicants respectfully submit the present invention is clearly inventive over and above CA '844. The requirement of separating the deposited material into two substantially equivalent sheets is neither recognized nor suggested by CA '844 and the inventive solution

provided by the present claims is absent from CA '844.

II. Conclusion

In view of the above, it is respectfully submitted the present claims are neither taught nor suggested by CA '844. Thus, a Notice of Allowance is respectfully requested.

Respectfully submitted,

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